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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/616,548 | 07/10/2003 | Leo Baldwin | ESI-144-B | 2806 |

7590 08/22/2005
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EXAMINER

STAFIRA, MICHAEL PATRICK

ART UNIT PAPER NUMBER

2877

DATE MAILED: 08/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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| | | | |
|------------------------------|---------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 10/616,548 | Applicant(s) BALDWIN ET AL. | |
| | Examiner Michael P. Stafira | Art Unit 2877 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>2/27/04; 11/3/03</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 01/35077

A1.

Claim 1

WO 01/35077 A1 discloses determining a nominal illumination angle for the object; positioning a light source (Fig. 1, Ref. 11) at an angle complimentary to the nominal illumination angle of the object (Fig. 1, Ref. 12) (See Abstract).

Claim 2

WO 01/35077 A1 further discloses the nominal illumination angle is empirically determined (See Abstract).

Claim 3

WO 01/35077 A1 further discloses the nominal illumination angle is mathematically determined (See Abstract).

Claim 4

The reference of WO 01/35077 A1 further discloses the light source is positioned to

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subtend less than the entire object (See Fig. 1, Ref. 12, 14).

3. Claims 5, 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Stover et al. ('906).

Claim 5

Stover et al. ('906) discloses a plurality of discrete light sources (Fig. 7, Ref. 32; Col. 9, lines 30-32) arranged in two dimensions and positioned at an angle complementary to the nominal illumination angle (See Fig. 7).

Claim 6

Stover et al. ('906) further discloses the discrete light sources are LEDs (Col. 3, lines 8-9).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stover et al. ('906) in view of Jusoh et al. ('946).

Claim 7

Stover et al. ('906) substantially teaches the claimed invention except that it does not show an LEDs mounted on a circuit board in the shape of a cone. Jusoh et al. ('946) shows that it

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is known to provide LEDs shaped in a cone (See Fig. 5) for an illumination apparatus. It would have been obvious to combine the device of Stover et al. ('906) with the cone shaped LEDs of Jusoh et al. ('946) for the purpose of providing uniform illumination of the inspection surface, therefore increasing the accuracy of the measurement.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stover et al. ('906) in view of Cochran et al. ('048).

Claim 8

Stover et al. ('906) substantially teaches the claimed invention except that it does not show the LEDs are mounted on two rigid circuit boards. Cochran et al. ('048) shows that it is known to provide LEDs mounted on two rigid circuit boards (See Fig. 1) for an illumination device. It would have been obvious to combine the device of Stover et al. ('906) with the two LED circuit boards of Cochran et al. ('048) for the purpose of providing uniform illumination of the inspection surface, therefore increasing the accuracy of the measurement.

7. Claims 9, 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Stover et al. ('906).

Claim 9

Stover et al. ('906) discloses a two dimensional light source (Fig. 7, Ref. 34) positioned at an angle complementary to the nominal illumination angle (Col. 9, lines 30-31).

Claim 10

Stover et al. ('906) discloses the light source is a two dimensional collection of LEDs

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(Col. 3, lines 9-10).

8. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stover et al. ('906) in view of Jusoh et al. ('946).

Claim 11

Stover et al. ('906) substantially teaches the claimed invention except that it does not show an LEDs mounted on a circuit board in the shape of a cone. Jusoh et al. ('946) shows that it is known to provide LEDs shaped in a cone (See Fig. 5) for an illumination apparatus. It would have been obvious to combine the device of Stover et al. ('906) with the cone shaped LEDs of Jusoh et al. ('946) for the purpose of providing uniform illumination of the inspection surface, therefore increasing the accuracy of the measurement.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Stafira whose telephone number is 571-272-2430. The examiner can normally be reached on 4/10 Schedule Mon.-Thurs..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Toatley can be reached on 571-272-2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael P. Stafira
Primary Examiner
Art Unit 2877

August 16, 2005